

DISCUSSION OF THE AMENDMENT

Claim 1 has been amended to recite a result of the reforming step, which result relates back to the preamble; by reciting that the macromolecule or agglomerate are --initially-- comprised in the liquid sample; and by inserting that the interface layer, before forming the stabilized dispersion, is a monolayer located at the surface of the liquid sample and which is able to selectively fix the macromolecule or agglomerate to be concentrated.

Claims 4 and 5 have been amended to be consistent with the amendment to Claim 1. Each of Claims 6-10 has been amended to recite that the recited material, i.e., macromolecule or agglomerate, is the one that is selectively concentrated. In addition, the word "the" before "specific hybridization" in Claim 10 has been deleted. In each of Claims 14-16, the layer has been recited as an interface layer. In addition, a step of recovering the interface layer has been added in Claim 14 as the last step thereof, and Claim 16 has been amended to recite that the amplifying of the last step is of the macromolecule or agglomerate. Claims 17 and 18 have been amended, analogously to the above-discussed amendment of Claims 6-10.

No new matter is believed to have been added by the above amendment. Claims 1-19 remain pending in the application.

REMARKS

The rejection of Claims 1, 2, 4, 6, 9, 15 and 19 under 35 U.S.C. § 102(b) as anticipated by WO 01/64164 (Unger), is respectfully traversed.

Unger relates to nanocapsules and methods of preparing same, which method comprises dispersing a bioactive component in a first aqueous composition, in order to form a hydrophilic composition; introducing to a surfactant composition to the hydrophilic composition in such a way that the surfactant molecules adsorb onto a surface of the bioactive component generating micelles (i.e., globules comprising a core of the bioactive component and a shell of the surfactant molecules); adding a biocompatible polymer component to the surfactant micelles to stabilize the surfactant micelles located in the first aqueous composition; and adding a second aqueous composition that includes a solute capable of precipitating the biocompatible polymer component that coats the stabilized surfactant micelle (page 4, line 23 through page 5, line 25). The nanocapsules are used in controlled-release delivery systems for macromolecules, such systems being the above-discussed nanocapsules having a diameter of less than about 50 nanometers (page 1, lines 7-12).

Unger neither anticipates nor otherwise renders the above-amended claims unpatentable. Unger neither discloses nor suggests an interface layer located at the surface of the liquid sample and being able to fix selectively the compound to be concentrated contained in the liquid sample, nor does Unger disclose or suggest the formation of a dispersion from a medium comprising the liquid sample and the interface layer, nor reforming the interface layer by resorption of the stabilized dispersion. Nor does Unger disclose or suggest a monolayer located at the surface of the liquid sample as the interface layer.

For all the above reasons, it is respectfully requested that this rejection be withdrawn.

The rejection of Claims 1-2, 4-6, 9, 10, 14, 15 and 19 under 35 U.S.C. § 102(b) as anticipated by Jäschke et al, *Nucleic Acids Research*, 1994, Vol. 22, No. 10, pp. 1880-1884 (Jäschke et al), is respectfully traversed. Jäschke et al is drawn to a process for the selective extraction of nucleic acids based on the use of polyethylene glycol (PEG)-coupled oligonucleotides, which process comprises contacting an extract comprising mono-stranded nucleic acids with an aqueous two-phase medium dextran/PEG comprising the PEG-coupled oligonucleotides. Once the hybridization is carried out, a duplex formed with the mono-stranded nucleic acids and the PEG-coupled oligonucleotides passes through chemical affinity in the PEG phase. All the examples specify that both phases present an equal volume. Thus, Jäschke et al neither describes nor suggests using an interface layer to concentrate a molecule.

Like Unger, supra, Jäschke et al neither discloses nor suggests the presently-claimed invention, which requires the formation of a dispersion from a medium comprising the liquid sample and the interface layer, and reforming the interface layer by resorption of the stabilized dispersion. Nor does Jäschke et al disclose or suggest a monolayer located at the surface of the liquid sample as the interface layer.

For all the above reasons, it is respectfully requested that this rejection be withdrawn.

The rejection of Claims 1, 4-6, 9-10 and 15 under 35 U.S.C. § 102(b) as anticipated by US 6,020,131 (Ijiro et al), is respectfully traversed. Ijiro et al is drawn to a method for detecting the amount of nucleic acid polymer, which comprises the steps of modifying an intercalator to be amphiphilic by using a hydrophobic group, spreading the amphiphilic intercalator or aqueous solution containing a nucleic acid polymer to form a monolayer of said nucleic acid polymer and said amphiphilic intercalator at the gas-water interface, and measuring surface pressures per unit area of said monolayer (Abstract). However, Ijiro et al neither discloses nor otherwise suggests forming a stabilized dispersion, followed by a

resorption step, as recited in Claim 1 herein. Both steps are fundamental in obtaining a good concentration of compounds to be extracted.

For all the above reasons, it is respectfully requested that this rejection be withdrawn.

The rejection of Claims 1, 2, 6, 8, 9, 16 and 17 under 35 U.S.C. § 102(a) and 35 U.S.C. § 102(e) as anticipated by US 6,750,261 (Clear et al), is respectfully traversed. The earliest prior art date of Clear et al is its filing date, i.e., April 8, 2003. Contrary to the finding by the Examiner herein, the present national stage application is automatically entitled to the filing date of the international application, which is March 24, 2003. See 35 U.S.C. § 363 and MPEP § 1893.03(b). The Examiner has apparently used the date of entry into the national stage, i.e., the date on which all the requirements of 35 U.S.C. § 371(c) were complied with, as the filing date, which is clearly in error. Thus, Clear et al is not prior art herein. Accordingly, it is respectfully requested that the rejection be withdrawn.

The rejection of Claims 1-19 under 35 U.S.C. § 112, second paragraph, is respectfully traversed. Indeed, the rejection would now appear to be moot in view of the above-discussed amendment, except for the Examiner's critique of the term "selectively fixing". In reply, Applicants respectfully submit that this term is widely used in the field of extraction and in the present situation, means that the interface layer retains the macromolecule or the agglomerate from the liquid sample without retaining other molecules. Accordingly, it is respectfully requested that this rejection be withdrawn.

Regarding the use of a trademark at page 12 of the specification, since the term contains a TM superscript designation thereafter, there is no question that to the extent the term is proprietary, it is respected. Nevertheless, should the Examiner determine that the present application is otherwise in condition for allowance, Applicants have no objection to capitalizing the term in question.

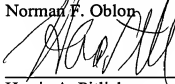
Application No. 10/507,521
Reply to Office Action of January 10, 2007

Applicants respectfully submit that all of the presently-pending claims in this application are now in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Norman F. Oblon



Harris A. Pitlick
Registration No. 38,779

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 03/06)

NFO:HAP\la